PARACYMOTHOA THOLOCEPS, A NEW FRESHWATER PARASITIC ISOPOD FROM SOUTHERN VENEZUELA (FLABELLIFERA: CYMOTHOIDAE)

Thomas E. Bowman

Abstract. – Paracymothoa tholoceps is described from a single specimen collected from Hoplias macrophthalmus in the Baria River, a tributary of the Orinoco River, in Amazonas State, Venezuela. It differs from the two known species, P. astyanactis and P. parva, in its larger size, convex anterior margin of the head, convex posterior margin of the telson, longer and more exposed pereonite 7, and less reduced dactyl of percopod 7. The diagnosis of Paracymothoa is emended to accommodate the new species.

The genus *Paracymothoa* was established by Lemos de Castro (1955) for a Brazilian isopod taken from the mouth of *Astyanax bimaculatus*. A second species, *P. parva*, described by Taberner (1976), was found parasitizing *Hyphessobrycon callistus* in Argentina. A third species, from southern Venezuela, is described below.

Paracymothoa tholoceps, new species Fig. 1

Material. – Venezuela, Amazonas territory, Baria River, near base camp of expedition to Cerro de la Neblina, elev. 140 m (ca. 1°45'N, 66°W), ex Hoplias macrophthalmus (Pellegrin) (Erythrinidae), leg. Ramiro Ruyero, 26 Feb 1985; 1 ♀ without oostegites, 24.3 mm, holotype USNM 231092.

Etymology.—From the Latin "tholus" (dome, rotunda) plus "-ceps" (head), referring to the round anterior margin of the head.

Diagnosis. – Paracymothoa tholoceps may be distinguished from its two congeners by its greater size, the shape of the head and pleotelson, and the well developed pereonite 7 and dactyl of pereopod 7. The principal differences between the three species are set forth in Table 1.

Discussion

As defined by Lemos de Castro (1955) and Taberner (1976), *Paracymothoa* differs from its presumed marine ancestor, *Cymothoa* Fabricius, 1793, by the short pereonite 7, almost completely covered by pereonite 6, the short dactyl of pereopod 7, much shorter than the dactyls of the other pereopods, and the weak carinae on the bases of pereropods 4–6, lacking in pereopod 7. *Paracymothoa tholoceps* is closer to *Cymothoa* than *P. astyanaxi* and *P. parva*. Pereonite 7 and the dactyl of pereopod 7 are less reduced, and pereopods 5–6 have well developed carinae on the basis.

The mandible was extremely difficult to remove, and appeared to be firmly attached to the labium. When finally extracted, it had an extraordinary form (Fig. 1f). Brusca (1981) has stated that some authors (including Bowman 1960: fig. 1h) have illustrated a mandible with one lobe of the paragnath attached to it and erroneously considered part of the mandible. Perhaps this explains the unusual form of the mandible in Fig. 1f, yet when removed the labium appeared to be undamaged (Fig. 1g). The labium itself is unusual; the lateral lobes are rather slender and the anterior apices

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Table 1.-Characteristics of the species of Paracymothoa.

Character	P. astyanactis ¹	P. parva	P. tholoceps
Length \times width (mm)	10.5 × 5	4.2 × 2	24.3 × 12.2
Widest pereonite	6	4	5
Anterior margin of head	Nearly straight	Nearly straight	Convex
Pleotelson width/length	2.5	2	2
Pleotelson posterior margin	Emarginate	Nearly straight	Convex
Pereonite 7	Nearly covered by pereonite 6	Nearly covered by pereonite 6	Only slightly covered by pereonite 6
Antenna 1 segments	6	7	8
Antenna 2 segments	8	8	8
Maxilla 1 apical spines	Much larger than subapical spines	Subequal to subapi- cal spines	Subequal to subapical spines
Pereopods 4–5, propus	Naked	With row of spines	Naked
Pereopod 7, carpus and propus	With row of spines	With row of spines	Naked
Propus with distal corner spine	Pereopod 7	Pereopods 2-7	None
Pereopods 5-6 basis	Not expanded	Not expanded	Expanded
Pereopod 7 dactyl	Much shorter than propus	Much shorter than propus	Nearly as long as pro- pus
Uropods	Rami subequal, reaching posterior margin of telson	Rami subequal, reaching posterior margin of telson	Outer ramus longer, reaching ca. mid- length of telson
Distribution	Rio de Janeiro and Minas Gerais states, Brazil	Corrientes Province, Argentina	Amazonas State, Ven- ezuela
Host	Astyanax bimacula- tus (L.)	Hyphessobrycon cal- listus (Boulanger)	Hoplias macrophthal- mus (Pellegrin)

¹George C. Steyskal has kindly pointed out to me that *astyanaxi* is an incorrect genitive of the host genus and must be corrected to *astyanactis* [(ICZN 32(d)(ii))].

overlap, and the short medial lobes are separated by a deep cleft. Unfortunately the single specimen is insufficient for a thorough study of the mandible and labrum and their relationships.

Since Paracymothoa tholoceps does not fit in some respects the definitions of Paracymothoa given by Lemos de Castro (1955) and Taberner (1976), an emended definition is given.

Paracymothoa Lemos de Castro, 1955

Diagnosis (emended).—Body oval. Head not deeply immersed in pereonite 1; anterior margin broad and almost straight, or convex; not curved ventrally. Antennae short, antennae 1 widely separated at base. Pereonite 1 with short anterolateral angles. Pereonite 7 shorter than other pereonites, sometimes almost completely covered by pereonite 6. Pleon deeply immersed in pereon and much narrower than pereon. Pereopods relatively short; pereopods 1–3 somewhat smaller than pereopods 4–6. Carina of basipod weakly developed in pereopods 4– 6 or moderately developed in pereopods 5– 6. Pereopod 7 slender, without carina, with dactyl reduced compared to other pereopods. Parasites of freshwater fishes.

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Fig. 1. *Paracymothoa tholoceps*, holotype: a, Habitus, dorsal; b, Pereon, lateral, showing coxae and bases; c, Head, ventral; d, Antenna 1; e, Antenna 2; f, Left mandible; g, Labium; h, Left maxilla 1, apex; i, Left maxilla 2; j, Left maxilliped; k-q, Pereopods 1-7; r, Left uropod.

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Department of Invertebrate Zoology, National Museum of Natural History, NHB-163, Smithsonian Institution, Washington, D.C. 20560.